



**JAI BHARAT**  
STEEL

**HAMARA  
LOHA  
DUNIA  
MANE**

TRADEMARK

**TC TEMP CORE** CRM  
BELGIUM



**JAI BHARAT**  
STEEL





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◆ PREFACE

The changing facets of the infrastructure industry are meticulously re-defining the artistic sense of the cities and buildups. To fill the cities which are becoming over crowded with the migration and search for more space adds more pressure on the remaining developed places. As an answer, the vertical, tall structures have become an effective solution to accommodate the fast-growing demand. The steel frame needs more strength to uphold and bear the load of the structures now. The beautiful structures standing, touching the sky make all of us stand to wonder where is the end of these buildings.

Jai Bharat steel TMT Bars can bear more mass with less consumption of steel made us stand apart from the other brands in the market.

In every structure Jai Bharat steel where ever used stands as the promise of safety and assurance to durability and strength forever.

Safety and security of any structure rely on the steel frame inside. We can't afford to be negligent when we choose a TMT bar. Select brand with proven track record of durability, rust resistance, grip and strength to bear load.

Jai Bharat is a reputed brand, I can say proudly. Because, they have 65 years of long legacy and meet guidelines, and standard set by all monitoring agencies.

*Randeep Hooda*  
Randeep Hooda  
ACTOR

HAMARA  
LOHA  
DUNIA  
MANE







*Randeep Hooda*

Randeep Hooda

(ACTOR)

The revolution in steel making and the consumption of the steel taking a new turn...

The demand for assurance of security and safety for the building and the designing pattern which makes each structure more beautiful. Demands for new designs and the architects and engineers come out with more adaptive designs that would withstand any challenges from calamities. That is the time, we steel makers are forced to deliver strong steel bars that takes less in quantity and more in strength which saves time, money and space.

# PROLOGUE

We, Jai Bharat, responded to the demand in the market launching time tested, innovative and scientific all proven new steel bars.

Today, Jai Bharat EQR-600 is the strongest TMT rib bar that would hold more mass at the same time saves 20% of cost and space. The challenge in front of us is not less and as the crowd in the cities are increasing with migration and movement of the educated class, we have to ensure living spaces. With our all efforts Jai Bharat innovates and designs new products that merit all requirement of the infrastructure industry and pay our role responsibility to be part of the Nation building.



**S**amalkha in Haryana is now a sign of the Global standard steel makers where Jai Bharat was born and set up it's footprint in the steel making many years ago. Launching the first automatic plant, the best quality steel was made and won the trust of our customers within a short span of time.

## OUR JOURNEY

Now, we are the prominent leader in the northern region market of India. Jai Bharat conglomerate is filled with many more innovative units. JB Rolling Mills Limited, H.M. Steels Ltd, Ambica Alloys, Krishna Packaging (LPG-cylinder) plant in Himachal Pradesh. Shamli steel Pvt Ltd in Uttar Pradesh and Sri Ram Hard Coke and Allied Industries in Dhanbad.





Rishabh Jain

Manish Jain

Sandeep Jain

Surender Jain

Bijender Jain

Sanjay Jain

Sanyam Jain

Ajay Jain

Narender Jain



A commitment to quality and a long journey of winning trust. The journey was long but it had a mission to make the best steel for the infra-sector.

Two visionaries behind this journey are Sri. Jagdish Jain and Sri. Jaipal Jain. They have bought up JB group as the most powerful steel making engine in North

## Management

Today, Jai Bharat conglomerate makes steel and other products with quality and purity assurance.

The entire Jai Bharat management make sure that every inch of Jai Bharat steel meets the stringent standard in superior ductility, super longevity, corrosion resistance and high tensile strength. That is why we have won the trust of our valued customers and growing faster.



Shri Jagdish Jain

Shri Jaipal Jain



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Wire Rod Manufacturing Unit



Non Polluting Plant



SPECTO LAB



UNIVERSAL TESTING MACHINE



# State-of-the-art Plant

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**J**ai Bharat is an eco-friendly steelmaker, reducing pollution and reducing energy waste. We make steel that would test the metal of the time and calamities. Installing state-of-the-art machinery and innovative ideas. We make our plant one of the least polluting steel plants in India.

## **Quality Testing**

In Jai Bharat, a post modern laboratories are functioning under the guidance of the quality testers and following the stringent monitoring rules. Experts and experienced technician make sure that every inch of the steel comes out of the Jai Bharat plants is the best in its quality and meets all the standards set by the global steel industry.

Our mill is equipped with coil reforming technology and ensures good coil stability without any damage. Reason why our customers trust Jai Bharat Steel above any other brands.

JAI BHARAT  
STEEL

JAI BHARAT  
STEEL





The standard section weight and difference with 'JAI BHARAT TMT' is enumerated by the table below:

## TMT RANGE

### Benefits of Using JAI BHARAT TMT Bars:

Sizes mm Dia	Section Wt. gms./MT	ISI	Tolerance in weight	Jai Bharat TMT
8	395	± 7%		(-) 3%
10	617	± 7%		(-) 3%
12	888	± 5%		(-) 2%
16	1580	± 5%		(-) 2%
20	2470	± 3%		(-) 1%
25	3850	± 3%		(-) 1%
28	4830	± 3%		(-) 1%
32	6310	± 3%		(-) 1%

N.B.: These are indicative results of general standard lots of "JAI BHARAT TMT". There may be variance as per customer requirement/standards applicable.





## THE TYPES OF TMT BAR WE MANUFACTURE



### Normal TMT section

**FE 415 grade:** Fe 415 grade is the first innovation in TMT series which replaced conventional CTD bars with much better yield strength, ductility and elongation. The journey of modern day's construction steel started with the introduction of Fe-415 grade TMT bars.

## THE ADVANTAGES OF USING TMT BARS MANUFACTURED BY JAI BHARAT STEEL

### Feature of Fe 415 grade TMT Bars are Follows

YS (N/mm <sup>2</sup> ) Max.	Strength (N/mm <sup>2</sup> ) Min.	Elongation (%)	C (%)	S (%)	P (%)	S&P (%)
415.0	485.0	14.5	0.30	0.055	0.055	0.100

**Fe-415 D:** The 'D' variety of TMT bars were introduced by BIS in their latest development in the year 2008. This category of TMT Bars demonstrates higher tensile strength and ductility on and above normal grade TMT bars. 'D' variety TMT bars are manufactured through special category of billets and critically controlled thermal treatment during manufacturing process. The best part of and totally free of mechanical fatigue.

### Feature of Fe 415 D grade TMT Bars are Follows

MECHANICAL PROPERTIES			CHEMICAL PROPERTIES			
0.2% Proof Stress/YS (N/mm <sup>2</sup> )Max.	Tensile Strength (N/mm <sup>2</sup> )Min.	Elongation (%)	C (%)	S (%)	P (%)	S & P (%)
415.0	500	19.0	0.25	0.045	0.045	0.085

- Fe 500 Grade:** Fe 500 grade TMT Bars were introduced as an one step up technological marvel over conventional Fe 415 grade product. The superior tensile strength in Fe 500 TMT bars resulted in approximately 17% lesser consumption in steel in construction.

**Feature of Fe 500 grade TMT Bars are Follows**

MECHANICAL PROPERTIES			CHEMICAL PROPERTIES			
0.2% Proof Stress/YS (N/mm <sup>2</sup> )Max.	Tensile Strength (N/mm <sup>2</sup> )Min.	Elongation (%)	C (%)	S (%)	P (%)	S & P (%)
500	545	14.0	0.30	0.050	0.050	0.90

- Fe-500 D:** The 'D' variety of TMT bars were introduced by BIS in their latest armament in the year 2008. This category of TMT Bars demonstrates higher tensile strength and ductility on and above normal grade TMT bars. 'D' variety TMT bars are manufactured through special category of billets and critically controlled thermal treatment during manufactured process. The best part of and totally free of mechanical fatigue.

**Feature of Fe 500 D grade TMT Bars are Follows**

MECHANICAL PROPERTIES			CHEMICAL PROPERTIES			
0.2% Proof Stress/YS (N/mm <sup>2</sup> )Max.	Tensile Strength (N/mm <sup>2</sup> )Min.	Elongation (%)	C (%)	S (%)	P (%)	S & P (%)
500	565	18.0	0.22	0.035	0.035	0.070

**Feature of Fe 550, 550D Fe 600 grade TMT Bars are Follows**

- Fe 550 Grade & Fe 600 Grade:** Fe 550 grade & Fe 600 grade TMT Bars were introduced to further increase the technical excellence of TMT bars and propensity of consumption of steel in construction projects drastically got reduced due to much higher tensile strength and load bearing capabilities of this technologically superior grade of TMT bars. Gradually the structural engineer fraternity is inclining towards these high end TMT Bars.

**Grade Fe- 550**

MECHANICAL PROPERTIES			CHEMICAL PROPERTIES			
0.2% Proof Stress/YS (N/mm <sup>2</sup> )Max.	Tensile Strength (N/mm <sup>2</sup> )Min.	Elongation (%)	C (%)	S (%)	P (%)	S & P (%)
550	585	12.0	0.22	0.035	0.035	0.070

Grade Fe- 550 D

MECHANICAL PROPERTIES			CHEMICAL PROPERTIES			
0.2% Proof Stress/YS (N/mm2)Max.	Tensile Strength (N/mm2)Min.	Elongation (%)	C (%)	S (%)	P (%)	S & P (%)
550	600	15.0	0.22	0.035	0.035	0.070

Grade Fe- 600

MECHANICAL PROPERTIES			CHEMICAL PROPERTIES			
0.2% Proof Stress/YS (N/mm2)Max.	Tensile Strength (N/mm2)Min.	Elongation (%)	C (%)	S (%)	P (%)	S & P (%)
600	660	12.0	0.25	0.035	0.035	0.070

**ADVANTAGE OF JAI BHARAT BARS**

- Longer life due to superior corrosion resistant
- High yield strength coupled with superior ductility and bendability
- No additional precaution required in material handling and transportation
- No extra operations required during fabrication
- Easy to weld
- Can be bend and re-bend using very small mandrel

**Physical Properties of Jai Bharat Bar**

Grade	Fe-415	Fe-415D	Fe-500	Fe-500D	Fe-550	Fe-550D	Fe-600
Yield Strength (N/mm2) Min	415	415	500	500	550	550	600
Tensile Strength (N/mm2) Min	10%more than actual 0.2 Percent proof Stress/ Yield Stress But not less than 458 N/mm2	12% more than actual 0.2 Percent proof Stress/ Yield Stress But not less than 500 N/mm2	8%more than actual 0.2 Percent proof Stress/ Yield Stress But not less than 545 N/mm2	10%more than actual 0.2 Percent proof Stress/ Yield Stress But not less than 565 N/mm2	6%more than actual 0.2 Percent proof Stress/ Yield Stress But not less than 585 N/mm2	8%more than actual 0.2 Percent proof Stress/ Yield Stress But not less than 600 N/mm2	6%more than actual 0.2 Percent proof Stress/ Yield Stress But not less than 660 N/mm2
Elongation (%) Min.	15.0	19.0	14.0	18.0	12.0	15.0	12.0

Looking for a price quote for TMT Bar? Jai Bharat is one of the most certified TMT bar manufactures, trusted by top builders and corporate houses.

## WHY TMT BARS ARE ESSENTIAL FOR CONSTRUCTING BUILDING?

The strength of a building lies in its foundation. And good quality TMT bars are essential construction material that makes the concrete structure strong, securing it from any damage.

TMT bars have an excellent tensile strength and are mainly used to reinforce concrete. It's because TMT bars are designed in such a way that they form an excellent bonding with the concrete. For this reason, TMT bars are widely preferred for all the key construction activities around the country and the world.



## WHAT IS WOWBOND TECHNOLOGY?

1st to introduced India's innovative, patented designed ribs that has been named WOWBOND Technology. It makes the home so secure by creating strong bonding with the concrete, so that no threat can ever bowl it out.

## HERE ARE FEW REASONS WHY TMT BARS ARE A MAJOR FACTOR IN CONSTRUCTION?

- TMT bars are good during earthquake where it helps to withstand the shear force TMT bars have good expansion capacity. It holds the columns against failure during earthquake.
- TMT bars have superior strength. These bars come in a variety of grades and are much stronger than conventional bars. Compared to steel, TMT bars give extra strength to the concrete structure. This feature makes them a cost-effective option for construction.
- TMT bars have unique bending ability. And that's why it is ideal for any construction work. It can be given any shape to meet the architectural and design needs of the building.
- TMT bars are resistant to corrosion. This is an important feature as its anti-corrosive properties ensure a longer life for the concrete structure.
- These bars are resistant to fatigue. This yet another unique and important feature of TMT bars. These bars can withstand any dynamic loading due to their excellent strength of the surface layer. This makes TMT bars an essential choice for super strong buildings.
- TMT bars are resistant to earthquake. They have a soft ferrite-pearlite core and a high strength outer layer. This makes them strong enough to withstand any seismic activity, thus increasing the longevity and strength of the concrete structure.
- TMT bars can withstand high temperature and are pretty flexible to work with. That's another reason why it's better to use TMT bars than other conventional bars.

*Keeping this in mind, J B ROLLING MILLS Ltd launched their Earthquake resistant TMT bars- JAI BHARAT EQR 600. It would ensure the "survival of the fittest" building if earthquake strikes*





To meet the changing trend of high-rises due to space scarcity the builders require the strongest steel to meet the endurance level holding the mass of the tall structures. This propped Jai Bharat group thinks ahead of time and we have launched EQR-600 TMT Bars. This steel bar reduces the cost of building and the time consumption for building and space by 20%. Today we are the best supplier of EQR-600 TMT Bars in North India. Our network and customer base is growing faster.

As a part of its technological advancement Jai Bharat has got Tempcore Technology CRM, Belgium.

# Jai Bharat-EQR 600 TMT

CRM Belgium Licenced EQR-600 Producer

This has open a new door to new EQR 600 TMT. Today, Jai Bharat is one of the few technologically advanced manufacturing unit in India which is qualified to manufacture this extra ordinary steel. The North and other seismic sensitive parts of India demands such extra ordinary steel to withstand the tremor. Besides all these, EQR 600 TMT, and its strength have drastically reduced the quantity of steel required to construct in a specific unit area as compared to ordinary TMT Bars. This adds value for money and reduced cost per unit area of the construction.

**The benefits of EQR 600 TMT are plenty.**

1. Yield stress is as high as 500/600
2. Minimum Tensile strength is 565 N/mm<sup>2</sup> / 660 N/mm<sup>2</sup>
3. The percentage of elongation is 16/12.
4. Carbon content 0.25 much higher than ordinary steel 0.30.
5. Phosphorous content is 0.040.
6. Sulphur content is 0.040.

All these physical and chemical properties make Jai Bharat EQR 600 TMT superior to other TMT bars

**Mechanical properties of Jai Bharat TMT Bars.**

	FE 500	FE 500D	FE 550	FE 600
Yield Stress	500	500	550	600
Tensile Strength Min	545 N/mm <sup>2</sup>	565 N/mm <sup>2</sup>	585 N/mm <sup>2</sup>	660 N/mm <sup>2</sup>
Elongation %, Min	14	16	12	12



#### Chemical Properties of Jai Bharat EQR 600 TMT

	FE 500	FE 500D	FE 550	FE 600
Carbon	0.30	0.25	0.30	0.30
Sulphur	0.055	0.040	0.055	0.040
Phosphorus	0.055	0.040	0.050	0.040

#### Quality Testing

In Jai Bharat, a-post modern laboratories are functioning under the guidance of the quality testers and following the stringent monitoring rules. Experts and experienced technician make sure that every inch of the steel comes out of the Jai Bharat plant is best in its quality and meet all standards set by the global steel industry. Our mill is equipped with coil reforming technology and ensures good coil stability without any damage. Reason why our customers trust Jai Bharat Steel above any other brands.



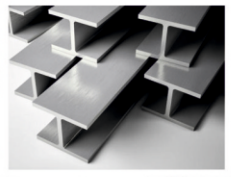
Our wire rods, is one of the best in the market. With a range of 5.5 mm to 25 mm diameters produced in our modern plant in Kalamb, Himachal-which is equipped with the latest technology from Tempore CRM Belgium, with an advanced rolling equipment like RSM (reducing an sizing mill) high speed shear, pinch rolls and laying heads.

Our wire rods are high in quality and superior in dimensional precision. Because, our post-modern – Mill can guarantee high degree of thermo-mechanical properties, accuracy and the other mechanical properties mentioned/prescribed in the global agencies.

## Wire Rods

Our other special products ranges are equally famous for their quality standard.

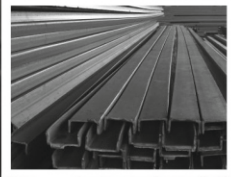
Shape	Manufacturing process	Size	Uses	Raw material
Round Coil form	<ul style="list-style-type: none"><li>• Advanced rolling</li><li>• Controlled temperature rolling</li><li>• Controlled cooling</li></ul>	5.5 mm to 25 mm	<ul style="list-style-type: none"><li>• Spring steel</li><li>• Spoke wire</li><li>• Pre-stressed concrete</li><li>• Tyre head</li><li>• ACSR</li></ul>	Ms-Billet



GIRDER



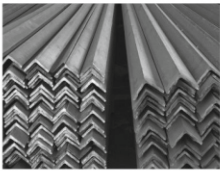
MS BLOOM



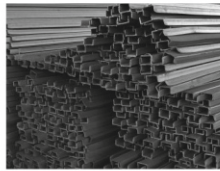
SLAB



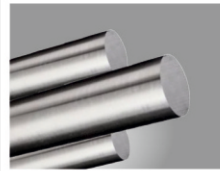
ANGLE



CHANNEL



ROUND BAR



## The Long range of most innovative products

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Showcasing much quality predicts Jai Bharat group become a major brand in the infrastructure industry.

Today, we have more than a dozen variety of products. MS Billet and EQR600 TMT Bars are the most demanding among them. It's Tensile strength is 660 N/mm.Sq. and it has got 14% more elongation ability. Besides all these core products, we produce and supply a vast range of products that would fulfill all requirements of the changing demand in the infrastructure market. **They are Billets, Angles, Channels, Flats and I & H Beams, Squares, Rounds, Wire Rods, M S Pipes, Alloy Steel and Coke for domestic and industrial applications.** The customers are always demanding Jai Bharat Steel products due to the trust on us.



### • MS Billet

A billet is a cross sectional product, commercially produced. It is Produced through a manufacturing process of either directly using continuous casting or extrusion. The indirect method is also used to produced Billets. Indirect methods like hot rolling an ingot or bloom. This square or round cross section metal's final product are bar sticks and wire. Sometimes centrifugal casting may be used to produce bullets. These bullets short circular tubes in shape. They are used as cylinder sleeves by grinding inner and outer diameters and machined to length. These bullets are not classified as semi finished products.

### • Angles

We offer the finest quality MS Angles, which are extensively used in fabrication industry. The dimension is determined by the length and the thickness of the two sides. The most commonly found steel angles are formed at 90 degree angle and has two legs of equal length. The sides are either equal or of different sizes, if one leg is longer than the other then it is known as UNEQUAL angle. The steel angles of various strength like HT (High Tensile) M/S are formed as required by different applications. These products are used in bracket, trimming, transmission line, framing and reinforcement. Our company also stocks and supplies Tower sections against orders of clients.

#### Advantages

- Wide dimensional range
- Excellent surface finish
- Close dimensional tolerance
- Formable and machinable
- Superior weldability
- Mild to high strength steel availability
- Superior mechanical and chemical properties

#### Sizes :

25 x 25 x 3 | 25 x 25 x 5 | 32 x 32 x 3 | 35 x 35 x 4 | 35 x 35 x 5 | 40 x 40 x 3 | 40 x 40 x 4  
40 x 40 x 5 | 40 x 40 x 6 | 45 x 45 x 5 | 50 x 50 x 4 | 50 x 50 x 5 | 50 x 50 x 6 | 65 x 65 x 5  
65 x 65 x 6 | 65 x 65 x 8 | 65 x 65 x 10 | 75 x 75 x 5 | 75 x 75 x 6 | 75 x 75 x 8 | 75 x 75 x 10

## • Channel

One of the hot rolled structural shapes which Jai Bharat Steel offers is the Indian Standard Medium Weight Channels which are available in a wide range of sizes and thicknesses. The shape provides superior structural support, making it an ideal product for frame and braces used for machinery, enclosure vehicle, building and structural support applications.

### Characteristics

Jai Bharat Steel offers is the Indian channel offers various characteristics which make it suitable for use in various industrial segments and as a support structure.

- Mild to High tensile strength
- Superior weldability
- Atmospheric corrosion resistance
- Wide dimensional range

### Sizes :

75 x 40 LC | 75 x 40 MC | 75 x 40 SPL | 100 x 50 LC | 100 x 50 MC | 100 x 50 SPL  
125 x 65 LC | 125 x 65 MC | 150 x 75 MC | 200 x 100 MC

## • Girders

Girder are characterized by their profile, their length, and their material. The grades conform to IS2062, ASTM A36, A572 Grade 50, EN10025, Canadian 44W or other equivalent. Jai Bharat Steel manufactures Girder in various configurations.

### Characteristics

To cater to the broaded market segment and comply to the different needs of various industries, Jai Bharat Steel offers structural sections with various characteristics in this segment.

- High strength to weight ratio
- Atmospheric corrosion resistance
- Wide dimensional range
- Superior weldability
- Cost effective
- Multiple sectional weights

### Sizes :

125 x 65 - 2.0 Kg | 125 x 65 - 2.5 Kg | 150 x 75 - 2.5 Kg | 150 x 75 - 3.0 Kg  
150 x 75 - 3.5 Kg | 150 x 75 - 4.0 Kg | 150 x 75 - 4.5 Kg

• **Round / Square Bars**

The Round/Square bars come with the promise of high quality and dimensional precision. The company continues to improve and innovate to product the best of quality and develop systems that can deliver its products at the end user's door-step in excellent condition. The quality assurance system equipped with modern equipment and highly skilled work force constantly strives to get the best of products by controlling entire process at every vital point.

**Round Bars**

Sizes :

12 mm | 14 mm | 16 mm | 18 mm | 20 mm | 22 mm | 25 mm | 28 mm | 32 mm

**Square Bars**

Sizes :

8 mm | 10 mm | 12 mm | 16 mm | 20 mm | 25 mm



Channel



Flat



Girders



MS  
Billet



Round /  
Square Bars



Angles





# Our Mission




The part of ever-increasing demand for space and beautiful structure ensuring security made us think ahead of time. Innovate, re-design and re-define the method of steelmaking to ensure quality and endurance level of our products. Today, our journey caught the storm of a galloping horse and we are climbing the high altitude winning more clients with trust and dedicated service.

We are Jai Bharat Steel.


**HAMARA LOHA DUNIA MANE**




# JAI BHARAT STEEL

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**ANGLE | CHANNEL | GIRDER | WIRE ROD | PIPE**